

REMARKS

Claims 1-58 are pending. Claims 2-41 and 43-58 are withdrawn from consideration by the Examiner although Applicant's Response to Restriction Requirement was made with traverse on October 31, 2001, and further in view of Applicant's Request for Reconsideration filed on September 26, 2002. Claims 1 and 42 stand rejected.

Restriction Requirement

Applicant understands that the Examiner has made the Restriction Requirement final. Applicant continues to traverse the requirement and attach hereto a Petition for Reconsideration of Restriction Requirement which "pin points" the figures omitted in the Restriction Requirement and again sets forth reasons why the Requirement is erroneous.

Rejections under 35 U.S.C. §102

Claims 1 and 42 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent 5,030,864 to Van Hout et al. Applicant respectfully submits that this rejection is overcome by the amendments to the claims for the reasons set forth below.

Applicant's invention, as recited in claim 1 (as amended) includes features which are neither disclosed nor suggested by Van Hout et al. ("Van Hout"), namely:

... a plurality of slots formed in said core, said plurality of slots each have an electrical angle which is one of between 90 degrees and 95 degrees and between 20 degrees and 35 degrees ... (emphasis added)

These features are described in Applicant's specification, for example, at page 14, line 25 through page 17, line 15, and Figs. 1A-5C.

According to claim 1, a motor core has a plurality of slots formed in the core with each of the plurality of slots having an electrical angle either between 90 degrees and 95 degrees or between 20 degrees and 35 degrees.

Van Hout is relied upon as "[disclosing] a core for use in a motor ... said core comprising: a plurality of slots formed in said core, said plurality of slots each have an electrical angle which is one of: a) between 80 degrees (see abstract) and 95 degrees; and b) between 20 and 35 degrees ..." (emphasis added). Office Action at page 2, paragraph 2. Van Hout does not disclose or suggest, however, that each of the plurality of slots have an electrical angle either between 90 degrees and 95 degrees or between 20 degrees and 35 degrees. Rather, Van Hout requires that "the slots extend in a tangential direction over at least 80 electrical degrees and at the most 90 electrical degrees, or over at least 130 electrical degrees and at the most 150 electrical degrees." Abstract, emphasis added.

In contrast, Applicant's invention, as recited in claim 1, specifies that each of the plurality of slots have an electrical angle of either between 90 degrees and 95 degrees or between 20 degrees and 35 degrees. As described in applicant's specification, this provides a minimization of cogging torque when the electrical slot opening angle is 90 degrees. See, page 14, line 25 through page 16, line 20 and Figs. 1A-4D.

It is because Applicant has included the feature of each of the plurality of slots having an electrical angle of either between 90 degrees and 95 degrees or between 20 degrees and 35 degrees, that applicant is able to reduce the cogging torque of the motor. Van Hout does not achieve this advantage because each of the core slots in Van Hout does not have an electrical angle of either 90-95 degrees or 20-35 degrees.

For the reasons set forth above, claim 1 is neither disclosed nor suggested by Van Hout, thus, claim 1 is not subject to rejection under 35 U.S.C. § 102(b) as being anticipated by Van Hout.

Although not identical, claim 42 recites features similar to those of claim 1. Therefore, claim 42 is not subject to rejection under 35 U.S.C. §102(b) as

being anticipated by Van Hout for at least the reasons set forth above with respect to claim 1.

In view of the amendments and remarks set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully Submitted,

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Enclosure: Version with markings to show changes made

Dated: February 11, 2003

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VERSION WITH MARKINGS TO SHOW CHANGES MADECLAIMS:

1 1. (Twice Amended) A core for use in a motor, said motor including N
2 and S magnetic poles for generating a magnetic field to which said core is opposed,
3 said core comprising:

4 a plurality of slots formed in said core, said plurality of slots each
5 have an electrical angle which is one of:

- 6 a) between ~~80-90~~ degrees and 95 degrees; and
7 b) between 20 degrees and 35 degrees,

8 a number of said magnetic poles is $2m$ and a number of said slots is
9 $3n$ (m and n are integers).

1 42. (Twice Amended) A motor including:

2 (a) magnetic field generating means having N and S magnetic poles
3 for generating a magnetic field; and

4 (b) a core made of magnetic material and opposed to said magnetic
5 field generating means;

6 wherein one of said magnetic field generating means and said core
7 rotates with respect to the other,

8 wherein a number of said magnetic poles is $2m$ and a number of slots
9 of said core is $3n$ (m and n are integers), and

10 a plurality of slots formed in said core, said plurality of slots each
11 have an electrical angle which is one of:

- 12 a) between ~~80-90~~ degrees and 95 degrees; and
13 b) between 20 degrees and 35 degrees.